Kentucky Environmental Quality Commission
Children's Environmental Health in Kentucky
A public forum and workshop

Meeting Minutes
October 16, 2003
University of Louisville
Shelbyville Campus

EQC Commissioners Present
Gordon Garner
Betsy Bennett, Vice-Chair
Patty Wallace
Lindell Ormsbee
Gary Revlett

EQC Staff Present
Leslie Cole, Executive Director
Erik Siegel, Assistant Director
Frances Kirchhoff, Executive Secretary

EQC Commissioners not attending
Aloma Dew, Chair
Jean Dorton

Speakers/Representatives Present
Mary Gwen Wheeler, Louisville/Jefferson County
Cabinet Secretary for Health and Family Services
Wayne Garfinkel, U.S. EPA Region 4
Alan Kalos, Northern KY Health Dept.
Tim Aldrich, University of Louisville
Rev. Lewis Coleman, Justice Resource Center
Barry Gottschalk, American Lung Association
Dr. Rice Leach, Commissioner, Dept. for Public Health
Dr. Robert Geller, Emory University

OPENING REMARKS

The Vice-Chair, Betsy Bennett opened the meeting at 6 p.m. Approximately 85 people were present. Ms. Bennett introduced the forum topic—children's environmental health. She stated that everyone in the room shares a common concern for and a desire to protect our children. We all want the best for our kids. But more than anything we want them to be healthy and happy and to live full active lives. Ms. Bennett noted that those dreams have been shattered for the thousands of Kentucky families whose children suffer from cancer, struggle to breathe because of asthma or face learning disabilities.

Commissioner Bennett stated that during the past 15 years, there has been what many are calling an epidemic of childhood illnesses including leukemia, asthma, autism and other learning disabilities occurring in the United States. Scientists are now linking environmental factors to the prevalence of several childhood illnesses and diseases. Children today face an array of exposures to potentially toxic environmental hazards. Hazardous substances such as lead, PCBs, solvents, asbestos, radon, pesticides, and air pollution have found their way into the homes, schools and playgrounds of our children.

Bennett told the audience that EQC hopes this forum will shed more light on how the environment is affecting our children's health here in Kentucky and what we can do as a state, a community, a school, a physician, a parent or a grandparent to reduce these risks to give our kids a fair shot at a full healthy life.

Commissioner Bennett introduced Mary Gwen Wheeler, Secretary of the Louisville/Jefferson Metro Government Cabinet for Health and Family Services. Ms. Wheeler

welcomed everyone to Louisville on behalf of Mayor Jerry Abramson. Ms. Wheeler said that the Cabinet for Health and Family Services has become more involved in identifying environmental risks to childhood health such as lead, air pollution and secondhand tobacco smoke. She stated that the Cabinet partnered with the Board of Health University of Louisville School of Medicine and the Metro Health Department to conduct a study on health issues in the Rubbertown area. She added that the metro government recently hired Dr. Troutman as the Director for Public Health.

EQC Commissioner Gordon Garner next reviewed the forum agenda and introduced speakers. He indicated that EQC had partnered with the Children's Environmental Health Working Group to hold the Oct. 16 public forum as well as a workshop scheduled for Oct. 17 on children's environmental health. Garner recognized the members of the Children's Environmental Working Group for their important role in raising the prominence of children's environmental health issues and needs in Kentucky and commended their efforts.

CHILDREN'S ENVIRONMENTAL HEALTH: EXPERTS PANEL DISCUSSION

Wayne Garfinkel, Children's Health Coordinator, U.S. EPA, Region 4, Atlanta
The program began with an overview of children's environmental issues by a panel of experts. Mr. Wayne Grafinkel, Children's Environmental Health Program Coordinator for the US EPA, Region 4 in Atlanta gave a brief overview of the U.S. EPA's Children's Environmental Health Program. It began in 1997 when an Executive Order was signed that required federal agencies to make it a high priority to identify and assess environmental health and safety risks that may disproportionately effect children, and ensure that its policies, programs, activities and standards address risks to children. In 1998, a U.S. EPA task force identified four priority areas for immediate attention: asthma, developmental disorders, childhood cancer, and unintentional injuries.

In May 1997, the Office of Children's Health Protection was established in the U.S. EPA to be the agency's conscience on children's issues and to institutionalize the national agenda and the Executive Order. The Office of Children's Health Protection informs the public by raising awareness about environmental health threats, by working with communities, sponsoring Children's Health Month, providing information on-line, engaging youth and developing strong partnerships.

The Children's Environmental Health Program in the Southeast Region provides communication and coordination linkages between regional environmental program areas affecting children and the U.S. EPA's Office of Children's Health Protection as well as other regional programs and forms partnerships with the Extension Service to provide education, outreach and compliance assistance. It partnered with the Agency for Toxic Substances and Disease Registry (ATSDR) to establish the Southeast Pediatric Environmental Health Specialty Unit program (PEHSU), and supports the regional asthma coalition.

Mr. Garfinkel provided some background information on children's environmental health issues.

- Children are not little adults—they eat and drink more for their size; their bodies are still developing; they may be less able to metabolize and excrete toxic substances.
- Poor environmental quality is directly responsible for 25 percent of all preventable ill health.
- About 12 million children under age five die annually from preventable illnesses. The major causes are pneumonia, diarrhea, measles and malaria.

- Ninety percent of diarrhea disease is the result of poor sanitation and lack of access to clean water and food. Every eight seconds a child dies from a water-related disease.
- Acute and chronic respiratory infections cause three million premature deaths a year. Indoor air pollution in developing countries, specifically biomass burning is especially burdensome for children.
- Environmental health threats to children are lead, pesticides and toxins, biological, indoor air, asbestos, UV radiation, ozone, particulate matter, and mercury. These environmental health threats are causing possible brain damage, learning disability, asthma, and childhood cancer.

Mr. Garfinkel called attention to the U.S. EPA's web site as a source of good information on children's environmental health issues and opportunities to address these concerns.

Alan Kalos, Northern Kentucky District Health Department

Mr. Alan Kalos, Planning Administrator with the Northern Kentucky District Health Department, shared his insight on environmental health issues in Kentucky. Mr. Kalos stated that three factors determine our health—genetics, behavior, and the environment. Children's health concerns include diabetes, cancer, lead poisoning, respiratory infections, gastro-intestinal infections, unintentional injuries, asthma, and allergies. Environmental health issues include outdoor and indoor air, surface water quality, built and home environment and food and drinking water.

Mr. Kalos noted that vital statistics for the year 2000 showed deaths for children less than one year of age accounts for 56.6 percent of all deaths for children ages 0 to age 17. These were put into five groups: deaths by unnatural causes (18 percent), homicide (six percent), suffocation (six percent), drowning (six percent), and other accidents (five percent). In the highest group, death by unnatural causes, death by motor vehicles resulted in eighteen percent of those deaths.

The problems assessing environmental health issues are:

- There is not an easily identifiable connection between environmental issues and our health.
- Environmental issues may only affect a small or localized population.
- Environmental effects may take a long time to show up as health problems.
- There is not a lot of local public health data.

Mr. Kalos indicated that what we need as a state is to:

- Conduct more research to develop the links between environmental risks and health outcomes.
- Provide better education for the public and for health care providers linking environmental risks to the health of our children.
- Provide better environmental heath data especially at the local level.

Dr. Tim Aldrich, Clinical Associate Professor, Preventive Medicine School of Health, Department for Epidemiology at the University of Louisville

Dr. Aldrich stated that Jefferson County has the greatest risk for disease from air toxins in the southeast United States. The U.S. EPA has been studying evidence of environmental disease by using Geographic Information Systems, relying on innovative statistical methods, examining simple spatial relationships and evidence of clustering, aspiring to identify priority populations for focused case investigations or follow-back studies in the form of the environmental public health indicators program. One of the U.S. EPA's focal interests is pediatric cancer. It has been posed many times as an evidence of localized environmental health risks.

Dr. Aldrich conducted such an analysis of pediatric cancers in Kentucky. The findings revealed that overall the pediatric cancer rates in Kentucky are below the national rate. The study also

revealed there were no pediatric clusters found at the county level and no clustering was found within Jefferson County. Also, there was no association with pediatric cancer and waste sites listed on the National Priority List of Superfund sites.

Dr. Aldrich noted that pediatric asthma is a highly preferable disease to study in Kentucky for links with airborne hazardous exposures. The study revealed asthma patterns within Jefferson County in areas with higher air pollution were evident. He noted that other social factors were also implicated including increased asthma rates among minority populations, smoking; literacy (parental ages) poverty, access to pediatricians and age/gender effects.

Question for Dr. Aldrich
Q. Can you put the slide concerning smoking back up please? Cancer rates are moving around the county, but I noticed that 40211 zip code pops up in almost every slide. Were the smoking rates high? What is the conclusion you draw from this?
A. We looked mostly at environmental point sources as concerned NPL sites that included industry within Jefferson County zip code 40216, but I agree, 40211 does come up a great deal. I think it is a basis for considerable interest and concern for citizens in that particular area. I regret that the strongest factor is poverty and low literacy in that zip code. That is an urban industrialized area. We hope to be able to do that with a small grant to study lung cancer risks in Jefferson County.

Q. So we can't come to the conclusion that smoking is the only factor in the 40211 zip code for asthma and cancer?
A. If we are talking about pediatric cancer, I don't think there is any way to suggest we have high rates. But if you are speaking of asthma I think it is very critical that there are other forces involved associated with access to care, associated to compliance with the treatment plans specified by the physician.

Q. Can it be associated with industries in Rubbertown maybe?
A. I can't see that it is associated with Rubbertown since it is to the west of this area.

Q. Concerning the Rubbertown issue, is it not true that prevailing winds go from West to East?
A. The winds in Jefferson are nearly circular depending on the season.

Q. With the 40211 being the southwestern part of Jefferson County, would you say that Rubbertown could possibly have an effect on 40211 zip code? Possibly?
A. I don't think it is fair to answer that question. One of the riches things about Jefferson County about environmental health studies is the enormous air monitoring data assets that we have. Before we had begun that, I had not studies the air pollution is the county adequately to respond to that question.

Q. Concerning Rubbertown, did you say we have 'enormous monitors' checking the air pollution?
A. No we have a number of monitors. The number of air monitoring stations and the amount of air going through there is enormous.

Q. Why then has the Mayor met with three of those industries on how they are going to cut down on toxic materials?
A. I'm all for reducing exposure.

Q. Where do you get your cancer statistics?

A. Cancer reporting is required by federal and state law and is collected statewide. The asthma statistics are based on hospitalization.

Q. Why are asthma rates so high in Appalachia?
A. Due likely to high rate of smoking, the burning of coal and other pollution sources such as cars and lack of access to health care.

Q. What about the study done on bladder cancer in Jefferson County?
A. Jefferson County bladder cancer rates are not conspicuously elevated. They are consistent with the state and the nation.

CHILDREN'S ENVIRONMENTAL HEALTH ISSUES: RESPONSE PANEL
The next session included a panel of 4 to respond to the experts' remarks and offer comments.

Rev. Louis Coleman, with the Justice Resource Center
The first speaker was Rev. Louis Coleman, with the Justice Resource Center. Rev. Coleman commended the U.S. EPA and the work they do to protect children. He gave an overview of the air toxics and other environmental problems in Rubbertown. He indicated that enough studies had been done and it was now time to take action.

Rev. Coleman grouped his responses into several categories as follows:

Concerning the school environment
- Stop using diesel fuel in school buses
- Water testing for lead should be done annually in all schools.
- LG & E smoke stacks too close to schools.

Concerning soil testing
Wastewater is being dumped into the Ohio River. MSD dumps 40 billion gallons of wastewater in the Ohio. The system cannot hold all the water and the river empties into our streams, creeks, and ponds. Children play in this water. And it goes into the soil. Soil testing in parks and neighborhoods should be done annually for lead, mercury, etc.

Concerning enforcement
When industry violates the law, they need to be fined significantly.

Concerning the air
Air pollution is highest at night. Rev. Coleman had a letter from the Louisville Metro Health Department in response to a request made for a health evaluation. The letter stated that, "no evaluation has been conducted relating to the western portion of the Jefferson County." The agency has not undertaken any health assessments of the community as it relates to the Rubbertown industry complex and other facilities. Rev. Coleman questioned that out of all these industries—21 total—no one has ever conducted a health assessment? It appears that industry is causing some of our health problems. Why isn't someone taking a health assessment? The Agency for Toxic Substances and Disease Registry (ATSDAR) came to Louisville and did a health assessment. Louisville officials responded that the particulate matter from the Gallagher Power Plant is one of the highest concerns in Louisville. Gallagher is in Indiana. The study said the main air pollution problem in Louisville is from Indiana! The next time they come to town, they need to talk to the people directed effected by pollution from Rubbertown. We are not taking necessary steps to reduce toxic emissions from industries and word of mouth and voluntary measures will not do it. We have to require these folks to do the right thing.

Recommendations

- Promulgate mandatory standards and requirements instead of volunteer compliance.
- Require zero toxic emissions and if they violate it, they need to be fined significantly.
- That accidental and fugitive emissions be reduced substantially.
- Air pollutants be reduced substantially.
- Release of toxins and particulate matter be reduced to a minimum.

Barry Gottschalk, Executive Director of the Kentucky Chapter of the American Lung Association

The next presenter was Barry Gottschalk, Executive Director of the Kentucky Chapter of the American Lung Association. The American Lung Association will soon celebrate 100 years of service in Jefferson County. Mr. Gottschalk stated it is a great pleasure to partner with EQC, the State Department for Health Services, Louisville/Jefferson County Board of Health and both Universities in dealing with problems relating to lung disease.

Mr. Gottschalk noted that much needs to be done in the area of children's health, especially children's lung disease. Mr. Gottschalk talked about indoor air quality and outdoor air quality. He also explained that the lungs of children are uniquely vulnerable to environmental exposure. Children breathe more rapidly, inhale more air relative to their body weight, and airways of children are narrower. They spend more time outdoors. They spend more time at play so their rate is higher and they take in more of what they are breathing. For example in the case of ozone there are a number of studies and the negative effect on the growth of lung function and how ozone effects individuals with asthma particularly children.

In the American Lung Association's "State of the Air" report, we analyzed every county in every state in terms of population at risk, and in Kentucky the number published stated that nearly 390,000 children ages 0 to 14 are in a county that has at least some level of ozone. Some 26 thousand children diagnosed with asthma live in those counties. We believe that ozone is a serious problem and we have turned our attention to it. Now consider other outdoor pollutants and indoor pollutants such as radon, tobacco smoke and poor ventilation of homes. An estimated 360,000 thousand children are exposed to second-hand smoke in their homes. Of added concern to the American Lung Association is the disproportionately high childhood respiratory disease rate, asthma in particular, that is seen in minorities in Kentucky. Substandard housing and environmental issues, poor access to health care, limited health education opportunities and smoking in the home are some of the reasons many children are at an increased risk.

Some observations and recommendations

Mr. Gottschalk agrees with the U.S. EPA's activities and solutions as outlined by Mr. Garfinkel. Their web site has much information on this subject. He also believes there is a need for more partnerships and tasks groups in Kentucky to address these issues. This should be a collaboration of public health, medicine, and community advocates and should involve youth. Gottschalk indicated that more Kentucky-specific research is needed to identify exposure risks, the what, where, and how much, and use it to put public health policy in place. Mr. Gottschalk mentioned the need for education and awareness and the challenge to make the connection between environmental exposure and health effects. He noted that those involved in these issued need to do a better job educating the public about the problem. There is a need to also focus on indoor air quality in our schools. Children spend much of their time there. The U.S. EPA has the "Tools for Schools" program. We would like to see this program in every school in Kentucky. It is now in every school in Jefferson County.

Dr. Rice Leach, Commissioner of the Department for Public Health.
The last speaker was Dr. Rice Leach, Commissioner of the Dept. of Health. Dr. Leach talked about changes that have occurred in the past 40 years that have made Kentuckians less healthy including:

- The population increase.
- The cost of health care.
- Obesity.

He noted that Kentuckians don't take responsibility for our health. He mentioned several areas where people are impacted by the choices they make such as ATVs, tanning beds, not using bicycle helmets and the over use of medications

Dr. Leach indicated that Kentuckians have come to believe that:

- Riding in a car is better than walking.
- Comfort and convenience are better than physical conditioning.
- We need more highways, more cars, more bridges.
- If we had more doctors, more pills, and more laws, then we can fix anything.

Unfortunately, according to Leach this had led to a number of public health issues. Dr. Leach felt that education was critical to changing behaviors.

QUESTION AND ANSWERS

Several questions followed the presentations. Some of the questions follow.

Q. I live close to Rubbertown. Emergency horns sounds all through the day and night. I have asked on several occasions what does this mean and what should we do as residents. I know that the horns mean something, but no one will get back to me and let me know anything. What should we do about this?
A. No response to the question was provided.

Comment. Dr. Aldrich, you indicated that the Rubbertown area has low literacy. If your kids were bused to that area and would breathe the chemicals we breathe on a daily basis, they would have low literacy too.

Q. Lung cancer has been studied mostly for cancers caused by smoking tobacco. I have statistics that show that cancer rates in children age 0 to 14 has increased by 26 percent in the past 20 years. Why is this? Please talk more about cancer is children.
A. Dr. Aldrich said that 12,400 new cases of cancer were reported in 1998 in the U.S. Cancer is the leading cause of death by disease among children age 1 and 19 years of age in the U.S. Leukemia is the most common, followed by central nervous system tumors, and lymphomas. The trends in some types of cancers suggest the need for closer examination to environmental factors leading to disease in children.

Q. The cancer data is from 1996 to 1999. Why don't we have more recent data?
A. Physicians are required to report cancer cases and they are given 6 months to do that. Then there is 6 months editing period. The reports take 18 months and they are behind because of funding, etc. A three-year lag for data is about par for the course.

Q. What about the permits for smoke stacks for the Rubbertown area?
A. LG & E is the only one that has continuous emission monitors. The others have periodic monitoring requirements.

Comment. Dr. Leach was talking about trust. As soon as we start asking about particular industries, conversation begins to shut down. We don't get information we ask for. The Air Pollution Control District has on their website the July report for voluntary emissions reduction for ozone. The companies that are not reducing emissions do not want their names published. That sets up an atmosphere of distrust between the residents of Rubbertown and the Air Pollution Control District—we need full disclosure.

Comment. When I was about age 3 my father taught me about water pollution by showing me the Ohio River. When I was in elementary school I looked at reports and was very concerned about the future of our planet and the environment. There are solutions to every issue that has brought up here tonight. I came here tonight to be connected with people that really care about solving the environmental problems. There is technology available and solutions available for the air and water issues. It all comes down to increased public awareness.

NEXT STEPS – FROM PROBLEMS TO SOLUTIONS

Dr. Robert Geller, Pediatric Environmental Health Specialty Unit at Emory University, GA
The final speaker, Dr. Robert Geller, Pediatric Environmental Health Specialty Unit at Emory University, GA provided a summary of the forum and opportunities to address the concerns raised.

He suggested that in order address the problem we must take a number of steps.

- To **solve a problem it must be studied** carefully and understood fully. He believes that the problems have been studied, but he stated he is not sure if all would arrive at the same conclusion as to what is the cause or what is the nature of the problem.
- Decide if the **problem can be fully corrected or just abated**. He said he is not sure if these problems can be corrected or if we are faced with or if it is at a point where we can make it better.
- **List what resources are required**. Money is always an issue, but it is not the only issue that is an important resource. If you have the fix for something, cheaply, well within your budget but it would take a thousand years, would it be something very interesting to you? Probably not as interesting as one that would give you a quicker result. Sometimes with the best intensions, a method to fix something creates a new problem.
- **Prioritize the problems.** There are usually multiple problems existing at the same time. List how they compare in importance and how do they compare in resources needed to implement the plan.

Dr. Geller went on to summarize the number of **environmental health problems** facing our children mentioned by the speakers and audience members including air pollution from fixed sources, air pollution from mobile sources, lead, radon, indoor air problems, pesticide exposure, water pollution, unsafe communities, urban sprawl, noise pollution, and exposure to toxins.

Geller suggested that the factors for the state or local government to consider when deciding **which problem to tackle** and in what order include:

- Feasibility of solution.
- Community interest and support.

- Perception of risk at both lay and professional level.
- Resources required.
- Potential gain from addressing the problem.

Dr. Geller noted that to **get to a solution** the state/community will need:
- Community-wide input desirable
- Core team of experts to design feasible approaches
- Governmental and civic review and input about the experts' recommendations
- Widespread support must be built and maintained

QUESTIONS AND ANSWERS / COMMENTS

Q. Has anybody seen anywhere in the United States where folks have successfully dealt with the trust issue where there is an environmental and where this is a perceived or maybe real health risk? If so, maybe we can bring them in to talk.
A. Yes, in Anniston, Alabama and Duluth, Louisiana. Dr. Geller added that PEHSU has been active in Anniston for four years. And yes, it is possible if you come in with a standpoint of following some of the problem solving principals and an attitude that we are going to work together even if it kills us, things get done and you can make the right thing happen. You have to have the same goal and you have to trust each other as partners.

Q. Has anyone looked at birth defects clusters and/or impacts and links to the environment in Kentucky? Do you plan to?
A. Dr Aldrich responded that it has been mentioned. I am a cancer researcher so I won't be looking at birth defects.

Comment. Gentlemen made the comment about just how bad the water is in Louisville. So bad that no stream in Jefferson, including the Ohio River would be recommended by the Public Health Department for prolong contact with human skin. That means that children should not wade in it or swim in it. Point-source pollution is mostly gone today. We have to look at the problem as a collective. We have to look at industry as a whole and say we don't want any of these things in our area.

Q. Do you think, Dr. Geller, Dr. Garfinkel and Mr. Gottschalk, that we should have toxic air pollutions standards in Louisville?
A. Dr. Geller restated the question to ask, would a standard help you. Maybe you should ask if you need a standard for a particular pollutant. All states do have rules. How they are implemented and how they are enforced varies. I think the comment you are trying to say is that you think Kentucky's rules are too lax and not sufficiently broad enough in scope. If you feel that way, then you need to let your elected officials know that.

Several additional questions followed until 9:30 p.m. Gordon Garner then thanked the panelists for attending and sharing their information with the audience and the Commission. Mr. Garner noted that EQC will be reviewing the information and developing recommendations. The commission will post these findings on its web site and will also email them to those who have signed in.

OTHER BUSINESS

Under other business, a motion was made by Lindell Ormsbee and seconded by Patty Wallace to approve the minutes of the EQC June 16 meeting. The motion passed unanimously. A motion was then made by Lindell Ormsbee and seconded by Patty Wallace to approve the minutes of the EQC July 15 meeting. The motion passed unanimously.

With no further business, the meeting adjourned at 9:30 p.m.

Signed

Date